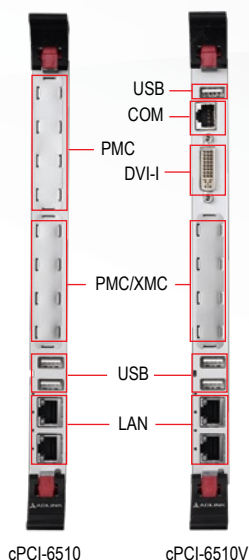
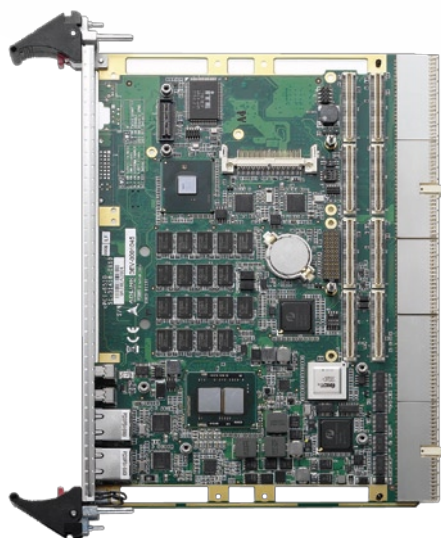


cPCI-6510 Series

6U CompactPCI® Intel® Core™ i7 Universal Blade with two PMC sites



Features

- 32nm Intel® Core™ i7 SV, LV, ULV processors with ECC
- Up to 8GB DDR3-1066 ECC soldered memory
- Two 64-bit/133MHz PMC sites with rear I/O
- One PCI-Express x8 XMC site
- Optional dual DVI ports for independent displays



Specifications

Processor & System

CPU	<p>µFC-BGA Intel® Core™ i7-610E Processor 2.53GHz, 4 MB L2, TDP 35W</p> <p>µFC-BGA Intel® Core™ i7-620LE Processor 2.0GHz, 4 MB L2, TDP 25W</p> <p>µFC-BGA Intel® Core™ i7-620UE Processor 1.06GHz, 4 MB L2, TDP 18W</p> <p>µFC-BGA Intel® Core™ i5-520E Processor 2.4GHz, 3 MB L2, TDP 35W</p> <p>µFC-BGA Intel® P4505 1.86GHz, 2 MB L2, TDP 35W</p> <p>µFC-BGA Intel® U3405 1.06GHz, 2 MB L2, TDP 18W</p>
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Chipset	Intel® QM57 PCH
RAM	Dual Channel DDR3-800/1066 MHz with ECC soldered onboard, maximum capacity 8GB

BIOS	AMI® EFI BIOS, 64Mbit SPI flash memory
CompactPCI Bus	PCI 64-bit/66MHz, 3.3V or 5V universal V(I/O) Supports operation in system and peripheral slots with CompactPCI® bus communication (Universal mode)

PICMG Standards	<p>PICMG® 2.0 CompactPCI® R3.0</p> <p>PICMG® 2.1 Hot Swap R2.0</p> <p>PICMG® 2.9 System Management R1.0</p> <p>PICMG® 2.16 Packet Switching Backplane R1.0</p>
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Connectivity

PMC/XMC	<p>Two PCI 64bit/133MHz PMC sites with rear I/O (PIM)</p> <p>One PCI-Express x8 XMC site shared with inner PMC site</p>
Ethernet	<p>Four PCI-Express Intel® 82574L Gigabit Ethernet controllers</p> <p>Two 10/100/1000BASE-T front panel ports</p> <p>Two 10/100/1000BASE-T PICMG 2.16 ports</p> <p>Two additional 10/100/1000BASE-T ports from Intel® 82576EB on RTM cPCI-R6100</p>
Graphics	<p>Integrated in Intel® Core™ i7 Processor</p> <p>Two DVI channels, one to front and one to rear</p> <p>Up to QXGA analog signal, switchable to front or rear</p> <p>One front panel DVI-I (digital+analog) port (cPCI-6510V only)</p>
USB	<p>Up to three USB 2.0 front panel ports (two for cPCI-6510, three for cPCI-6510V)</p> <p>Six USB ports routed to rear</p>
PS/2	PS/2 Keyboard Mouse port is routed to rear
Serial Port	<p>Max. three 16C550 compatible serial ports</p> <p>One RJ-45 port on front panel (cPCI-6510V only), two serial ports routed to rear</p>
Audio	High Definition Audio signals routed to rear

Storage

SBC	<p>One removable Serial ATA direct connector for 2.5" onboard HDD, occupies outer PMC site</p> <p>CompactFlash socket onboard (Standard temperature range support only)</p>
RTM*	<p>Up to 3 SATA ports</p> <p>CF (x1) and SD (x1) sockets</p> <p>One internal and one external 68-pin SCSI connector by LSI53C1020 SCSI Ultra320 controller (RAID 1)</p> <p>Eight SAS ports by LSI53C1020 SCSI Ultra320 controller (RAID 1)</p> <p>Eight SAS ports by LSI53C1020 SCSI Ultra320 controller (RAID 1)</p> <p>Eight SAS ports by LSI53C1020 SCSI Ultra320 controller (RAID 1)</p> <p>*Available interfaces dependent on RTM model selected</p>

Operating System

OS	<p>Microsoft Windows® XP Professional SP3</p> <p>Microsoft Windows® 7</p> <p>Fedora™ 12</p> <p>WindRiver VxWorks 6.8</p> <p>RedHat Enterprise 5.4</p> <p>(Please contact ADLINK for other OS support)</p>
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Miscellaneous

LED	Power (green), WDT (amber), Hot Swap (blue), Hard Disk (red)
Battery	Coin cell lithium battery onboard for RTC CMOS RAM
Watchdog Timer	System Reset and NMI, with programmable interval, 1-65535 seconds or minutes
Hardware Monitor	Monitors CPU temperature, system temperature, Vcore and DC voltages

Mechanical & Environmental

Form Factor	6U 4HP CompactPCI®												
Operating Temperature	<p>0°C to +60°C</p> <p>-20°C to +70°C (cPCI-ET6510)</p> <p>-40°C to +80°C (cPCI-EX6510)</p>												
Storage Temperature	-40°C to +85°C												
Rel. Humidity	95% non-condensing												
Shock	20G peak-to-peak, 11ms duration, non-operating												
Vibration	2 Grms random vibration, 5-500Hz, each axis, operating												
Power Consumption	<p>Core™ i7-610E 2.53GHz, soldered 2GB DDR3-1067 under Windows® XP with 100% CPU loading</p> <table border="1"> <thead> <tr> <th></th> <th>Current (A)</th> <th>Power (W)</th> </tr> </thead> <tbody> <tr> <td>5V</td> <td>4.44</td> <td>22.21</td> </tr> <tr> <td>3.3V</td> <td>6.09</td> <td>20.10</td> </tr> <tr> <td>Total</td> <td></td> <td>42.31</td> </tr> </tbody> </table>		Current (A)	Power (W)	5V	4.44	22.21	3.3V	6.09	20.10	Total		42.31
	Current (A)	Power (W)											
5V	4.44	22.21											
3.3V	6.09	20.10											
Total		42.31											
Weight	Net weight 793.5g with heatsink												

Safety & EMI

Certifications	CE/ FCC
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I/O Table

		GbE	USB 2.0	COM	DVI	VGA	PMC	XMC	SATA	SCSI	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
SBC																
cPCI-6510	Faceplate	2	2													
	Onboard						2	1			1					
cPCI-6510V	Faceplate	2	3	1 (RJ-45)	1 (DVI-I)											
	Onboard						1	1	1 (for 2.5" HDD)		1					
RTM																
cPCI-R6000	Faceplate	2	2	1 (DB-9)	1 (DVI-I)					1						
	Onboard		1 (5-pin)	1 ⁽¹⁾ (10-pin)					2 (7-pin)	1						
cPCI-R6100	Faceplate	4	4	1 (RJ-45)	1	1								1		
	Onboard								2 (7-pin)		1 ⁽³⁾				1	
cPCI-R6110	Faceplate	2	4			1								1		
	Onboard								3 ⁽²⁾		1 ⁽³⁾				1	
cPCI-R6200	Faceplate	2	5	1 (DB-9)	1 (DVI-I)							1	1	1		4 (SFF-8088)
	Onboard		1 (5-pin)	1 ⁽¹⁾ (10-pin)					3 ⁽²⁾		1 ⁽²⁾ (optional)					4 (SFF-8087)
cPCI-R6210	Faceplate		1		1 (DVI-I)											
	Onboard		1 (5-pin)	1 ⁽¹⁾ (10-pin)			2 (PIM)		2 (7-pin)							

(1) Tx, Rx signals only

(2) Two 7-pin signal connectors onboard for external HDDs and one direct connector for onboard 2.5" SATA HDD. Optional CompactFlash slot is supported by replacing SATA connector adapter with CompactFlash adapter. SATA HDD and CF cannot be used simultaneously.

(3) Converted from USB

Ordering Information

Model Number	Description/Configuration
Processor Blade	
cPCI-6510/610/M4G	6U CompactPCI® blade with Core™ i7 610E 2.53GHz and 4GB DDR3-1066 ECC soldered onboard memory, dual PMC sites
cPCI-6510/620L/M2G	6U CompactPCI® blade with Core™ i7 620LE 2.0GHz and 2GB DDR3-1066 ECC soldered onboard memory, dual PMC sites
cPCI-6510V/610/M2G	6U CompactPCI® blade with Core™ i7 610E 2.53GHz and 2GB DDR3-1066 ECC soldered onboard memory, single PMC site
cPCI-6510V/620L/M4G	6U CompactPCI® blade with Core™ i7 620LE 2.0GHz and 4GB DDR3-1066 ECC soldered onboard memory, single PMC site
cPCI-6510V/620U/M2G	6U CompactPCI® blade with Core™ i7 620UE 1.06GHz and 2GB DDR3-800 ECC soldered onboard memory, single PMC site
cPCI-ET6510V/620L/M4G	6U CompactPCI® blade with Core™ i7 620LE 2.0GHz and 4GB DDR3-1066 ECC soldered onboard memory, single PMC site and -20°C to +70°C operating
cPCI-EX6510V/620U/M2G	6U CompactPCI® blade with Core™ i7 620UE 1.06GHz and 2GB DDR3-800 ECC soldered onboard memory, single PMC site and -40°C to +80°C operating
Rear Transition Module	
cPCI-R6000	4HP Rear I/O module with GbEx2, COMx2, USBx3, SATAx2, SCSI, DVI-I (No FDD support)
cPCI-R6100	4HP Rear I/O module with GbEx4, COM, USBx4, SATAx2, DVI, VGA, PS/2, CF, SD socket
cPCI-R6110	4HP Rear I/O module with GbEx2, COM, USBx4, SATAx3, VGA, PS/2, CF, SD socket

cPCI-R6200	8HP Rear I/O module with GbE x2, USB x6, DVI-I, SATA x3, Mic-in, Line-out, PS/2 KB/MS, SAS x8
cPCI-R6210	4HP Rear I/O module with USB x2, DVI-I, PIM x2, COM x1, SATA x2
Mezzanine	
DB-CF-SA	CompactFlash socket adapter card (for cPCI-R6110 and cPCI-R6200)

